

ABSTRACT

An object of the present invention is to provide a nonaqueous electrolyte battery which restrains swelling of the battery during high-temperature storage and is excellent in battery performance after storage.

The invention is characterized by a specific constitution of a nonaqueous electrolyte and a combination thereof with a positive active material having specific crystal structure and composition. Namely, it is characterized by a nonaqueous electrolyte battery containing a positive electrode, a negative electrode, and a nonaqueous electrolyte, wherein the above nonaqueous electrolyte contains at least a cyclic carbonate having a carbon-carbon π bond and the above positive electrode contains a positive active material comprising a composite oxide represented by a composite formula: $\text{Li}_x\text{Mn}_a\text{Ni}_b\text{Co}_c\text{O}_2$ (wherein $0 \leq x \leq 1.1$, $a+b+c=1$, $|a-b| < 0.05$, $0 < c < 1$) and having an $\alpha\text{-NaFeO}_2$ -type crystal structure.